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EXAMINER

YANG, CLARA I

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/987,035

Applicant(s)

SHAMOON ET AL.

Examiner

Clara Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☒ Claim(s) 1-6, 10, 26-28, 39 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the health surveillance and monitoring equipment configured to poll a patient's condition, which are contained within the thermostat and remote control apparatus as required in claims 24 and 25, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The abstract of the disclosure is objected to because extraneous commas, such as the ones after "apparatus" in the first line, "interface" in the second line, and "display screen" in the third line. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

3. Claims 1 - 6, 10, 26 - 28, 39, and 40 are objected to because of the following informalities:

- ◆ Claims 1, 39, and 40: Remove parentheses around "USB".
- ◆ Claims 2 - 6, and 10: Remove everything between "claim 1," and "wherein" and replace "said" with the proper article because the apparatus called for in claim 1 and depicted in Figs 1 - 4 is a remote control device, and the device itself does not comprise: (1) an entertainment center; (2) a thermostat and HVAC system; (3) household appliance; (4) device with an X-10 protocol, a security system, or (5) an OCR document scanner.
- ◆ Claims 26 - 28: Replace "further comprising" with "wherein the item to be controlled by the apparatus is a" because the apparatus called for in claim 1 and depicted in Figs 1 - 4 is a remote control device, and the device itself does not comprise: (1) a pet surveillance and monitoring equipment (see page 21, lines 10 -

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12); (2) property control equipment, such as yard and greenhouse diagnosis, surveillance, supervision and maintenance equipment (see page 21, lines 17 - 18); or (3) vehicle engine start-up and warming equipment.

Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the

specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In the claim, the Applicants require a thermostat and remote control apparatus having the ability to communicate via a cellular network, a satellite system (such as the global positioning system), a weather radio system, and National Institute of Standards and Technology's (NIST) radio station WWV. These networks all use different frequency bands and protocols. For example, WWV operates in the high frequency (HF) portion of the radio spectrum and uses double sideband amplitude modulation for broadcasting the signals. The station radiates 10,000 watts on 5, 10, and 15 MHz; and 2500 watts on 2.5 and 20 MHz. In the global positioning system, the space vehicles transmit two microwave carrier signals: the L1 frequency (1575.42 MHz) and the L2 frequency (1227.60 MHz). Various codes (such as P-Code and Coarse Acquisition Code) are used to modulate and encrypt the L1 and L2 carrier phases. It is unclear how the applicants' thermostat and remote control apparatus is able to distinguish and isolate a desired signal from interfering signals

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since remote antenna 408 and radio frequency (RF) receiver detector 250 must be able to receive an extremely wide range of frequencies. And since the various networks use different modulation techniques and communications protocols, it is unclear how thermostat and remote control apparatus 10 is able to determine the proper demodulation technique upon receiving a signal.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 9, 25, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9, which depends on claim 7, recites the limitation "global positioning satellite device" in the first two lines of the claim. There is insufficient antecedent basis for this limitation in the claim. It is understood claim 9 depends on claim 8 instead of claim 7.

Claim 25, which depends on claim 23, recites the limitation "health surveillance and monitoring equipment" in the first two lines of the claim. There is insufficient antecedent basis for this limitation in the claim. It is understood claim 25 depends on claim 24 instead of claim 23.

Claim 30, which depends on claim 1, recites the limitation "further comprising predetermined and configured additional said remote control units" in the first two lines of the claim. There is insufficient antecedent basis for this limitation in the claim. Because claim 1 recites a remote control apparatus or device, the Examiner interprets claim 30 to be "The apparatus according to claim 1, wherein said apparatus and additional predetermined and

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configured remote control apparatuses are able to download data and/or programs to one another and are able to program/control and monitor a plurality of items using one or more of IR, RF, cell, satellite, or telephone communication means."

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 38 is rejected under 35 U.S.C. 102(e) as being anticipated by Publication No. US 2001/0025349 A1 (Sharood et al.).

Sharood imparts a building automation system, as shown in Figs. 1 and 2, comprising control server 100, which has (a) processor 200 that is connected by buses to electronically erasable programmable read only memory (EEPROM) 220 and random access memory (RAM) 222. Sharood discloses that control server 100 has pre-configured control function blocks or objects that run on a real time control engine capable of executing combinational and sequential logic control. In addition, the control function blocks executed by control server 100 are designed to operate in a number of modes, thereby implying that processor 200 has a main memory for executing program codes that control appliances and subsystems based on the operating mode. See Section [0059]. Per Sharood, control server 100 manages a number of

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primary networks, as shown in Fig. 1, and that each device connected to the building control (BC) system subscribes to the various features offered in the house manager modes through priority blocks, as illustrated in Fig. 12. Furthermore, Sharood teaches that each feature has an associated set of software functionality based on the available hardware components recognized by the BC system, thus implying that (b) at least one relational database is stored in either EEPROM 220 or RAM 222. See Sections [0150] and [0151]. Referring back to Fig. 2, processor 200 is connected via communications bus 202 to a plurality of (c) data communication devices 210, 212, 214, 216, 218, and 219. Sharood states that control server 100, as shown in Fig. 1, manages an Internet portal 5 via a digital subscriber line (DSL) modem, which is understood to be connected to processor 200 via bus 202. See Section [0051]. Sharood's control server 100 is able to control programmable thermostats in addition to other enhanced comfort devices. See Sections [0183] - [0189]. Because Sharood imparts that new applications and upgrades of existing software is obtainable through the Internet, it is understood that the application for controlling thermostats is (d) web-based and stored in control server 100's storage device. Sharood's universal controller 110 can be controlled and monitored by control server 199 through the RF or power line carrier (PLC) networks or by directly wired serial communication. See Section [0071].

10. Claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,104,334 (Allport).

Allport teaches a remote control 10, as shown in Figs. 2 and 18, comprises: (a) a housing; (b) graphical display 85 or interface that has programmable buttons (see Col. 12, lines 13 - 16); (c) a plurality of icons 200a, 205a, 210a, and 215a on graphical display 85 that correspond to a set of controls for items that are controlled by remote control 10 (see Col. 13, lines 49 - 55 and Col.

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15, lines 5 - 11); (d) graphical display 85 or display screen; (e) "clear" button 130 (see Fig. 6 and Col. 15, lines 44 - 51); (f) a Universal Serial Bus (USB) port 635 (see Col. 4, lines 47 - 52; Col. 5, lines 39 - 42 and 50 - 59; and Col. 27, lines 53 - 59); (g) central processing unit (CPU) 605 (see Col. 27, lines 9 - 17); (h) a Universal Asynchronous Receiver/Transmitter (UART) 675 for performing parallel-to-serial and serial-to-parallel conversions (see Col. 27, lines 40 - 42); and (i) control infrared (IR) port 640 for transmitting IR commands to a controlled apparatus (see Col. 27, lines 42 - 44).

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1 - 6, 10, 13, 14, 17, 18, 20 - 23, 33, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) in view of U.S. Patent No. 6,104,334 (Allport).

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Referring to Claims 1, 39, and 40, Wozniak's remote control device 10, as shown in Fig. 1b, comprises: (a) a housing; (b) buttons 11 and 13 or interface; (c) a plurality of icons on buttons 11 and 13 that correspond to a set of controls for items that are controlled by device 10 (see Fig. 9; Col. 3, lines 37 - 42; Col. 12, lines 4 - 57; Col. 13, lines 28 - 68; Col. 14, lines 1 - 68; and Col. 15, lines 1 - 68); (d) liquid crystal display (LCD) 14 showing current time and date (see Col. 3, lines 43 - 50); (e) recessed key 13i (En) or program and enter button (see Col. 2, lines 29 - 33 and Col. 12, lines 25 - 28); (f) button 13d or clear button for deleting a program being stored during the learning mode (see Col. 16, lines 3 - 8); (g) an electric cradle 25 (see Fig. 4a); (h) microprocessor U1 (see Figs. 7a to 7f and Col. 5, lines 44 - 47); (i) connector 27 for connecting device 10 via transducer 18 to cradle 25, which communicates with other devices, such as home computer 22 (see Figs. 3, 4b, and 4c; Col. 7, lines 65 - 68; and Col. 9, lines 3 - 6); and (j) transducer module 18 for controlling appliances that IR signals (see Figs. 2 and 3; and Col. 7, lines 38 - 59). As indicated by Fig. 11 and Col. 3, lines 23 - 32, Wozniak's device 10 is able to control thermostats. Wozniak discloses that device 10 provides status information and permits a user to monitor instructions in the timer program (see Col. 3, lines 43 - 45 and Col. 17, lines 16 - 19), thus implying that in addition to the current time and day of the week, device 10 is able to display the current temperature setting. Wozniak omits teaching the following: (1) using cradle 25 to recharge device 10; and (2) device 10 having a USB port, a plurality of serial or parallel ports for connecting a computerized device to device 10, an RS-232 port for transmitting serial data between any devices and device 10, and a universal asynchronous receiver/transmitter (UART).

In an analogous art, Allport's remote control 10 comprises: (a) a housing (see Fig. 2); (b) a plurality of "soft keys" on graphical display 85, buttons 90, 95, 100, 125, 130, 135, 140, and sliders 105 and 115 (see Figs. 2 and 8); (c) a plurality of icons on the buttons (see Col. 4, lines 54 -

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62); (d) display 85 (see Fig. 2); (e) clear button 130 (see Fig. 6); (f) docking station or electric cradle for recharging remote control 10's batteries (see Col. 28, lines 38 - 45); (g) USB port 635 and serial ports 645 and 655 (see Fig. 18 and Col. 27, lines 1 - 2 and 45 - 59); (h) RS-232 port 650 (see Fig. 18); (i) CPU 605 (see Col. 27, lines 9 - 17); (j) a Universal Asynchronous Receiver/Transmitter (UART) 675 for performing parallel-to-serial and serial-to-parallel conversions (see Col. 27, lines 40 - 42); and (k) control infrared (IR) port 640 for transmitting IR commands to a controlled apparatus (see Col. 27, lines 42 - 44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device of Wozniak as taught by Allport because (1) an electric cradle for recharging remote control 10's batteries ensures that remote control device 10's batteries are properly charged, thereby improving reliability; (2) a USB port is an industry standard port for "plug and play" connection to personal computers and is able to transfer data at a rate of up to 4 megabytes per second (see Allport, Col. 27, lines 53 - 57); and (3) a plurality of serial ports, such as an RS-232 port, modem port, or IrDA port, and a UART enables device 10 to connect to a variety of outside sources, such as the Internet, thereby enhancing the flexibility of device 10.

Regarding Claims 2 - 4 and 6, as shown in Fig. 11, Wozniak's remote control device 10 controls and monitors: (a) televisions, VCRs, and stereos, which form an entertainment center; (b) thermostats, which are inherently connected to HVAC systems; (c) household appliances, such as microwave ovens; and (d) security systems. (See Col. 3, lines 23 - 32.)

Regarding Claim 5, Wozniak is silent on device 10 controlling other devices using X10 protocol.

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Allport's remote control is able to communicate to other devices through proprietary base stations with X10 (power line communications) or CEBus protocols (see Col. 4, lines 36 - 39).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device 10 of Wozniak as taught by Allport because Allport states that remote controls obtain more functionality and power by communicating with devices through a proprietary base station, which interact with the devices through X10, CEBus, or RS-232 protocols (see Allport, Col. 2, lines 59 - 67 and Col. 3, lines 1 - 3).

Regarding Claim 10, Wozniak omits teaching that remote control device 10 controls an optical character recognition (OCR) document scanner.

Allport's remote control 10 can be connected to a CD drive and a printer via a docking station (see Col. 28, lines 45 - 50). In addition, Allport reveals that wired connections to a PC or other hardware devices are made through remote control 10's UBS or serial ports (see Col. 28, lines 54 - 56). Here it is understood that an OCS document scanner is one such hardware device.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device 10 of Wozniak as taught by Allport because a remote control with the ability to be connected to hardware devices is able to control the hardware device, thus enhancing the remote control's functionality.

Regarding Claims 13 and 14, Wozniak fails to disclose that remote control device 10 has two-way communication capability with a second remote control device.

Allport's remote control 10, on the other hand, includes the option of saving the current settings onto another remote control (see Col. 23, lines 13 - 19). Because Allport's remote

control 10 has IrDA port 645 (see Fig. 18) for wireless communication, it is understood that the first remote control 10 sends its current settings to a second remote control 10 via IR signals and that the second remote control 10 is also able to transmit data to the first remote control 10 via IR signals.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device 10 of Wozniak as taught by Allport because remote control devices having two-way communication capability enable a first remote control device to send its current settings to a second remote control device for storage, thus creating a backup remote control device with all the desired settings.

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Regarding Claims 17 and 23, Wozniak teaches connecting remote control device 10 to a PC via cradle 25, not through a USB port (see Col. 9, lines 3 - 6).

Allport imparts connecting a PC to remote control 10's UBS port 635 (see Col. 27, lines 53 - 55 and Col. 28, lines 26 - 31). By connecting remote control 10 to a PC, Allport states that remote control 10's current settings for all users can be stored on the PC's hard disk or that remote control 10's technical specifications can be accessed (see Col. 23, lines 13 - 19). Here it is understood that remote control 10's technical specifications is accessed by the connected PC and displayed on the PC's monitor. In addition, Allport discloses that remote control 10 can be connected to the Internet by a PC (see Col. 28, lines 51 - 52). Here it is understood that the PC's keyboard is used to access the desired Internet sites.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device 10 of Wozniak as taught by Allport because connecting remote control device 10 to a PC via a USB port enables fast data transfer and enhanced viewing, storage, and keyboard capabilities (see Allport, Col. 29, lines 31 - 42).

Regarding Claim 18, Wozniak's remote control device 10's microprocessor U3 keeps tracks of the time and functions as a timer (see Abstract and Col. 12, lines 61 - 64).

Regarding Claims 20 - 22, Wozniak's remote control device 10 has a transducer module 18 for transmitting and receiving both IR and RF signals, thereby providing roll-over communication capability (see Col. 2, lines 13 - 19 and Col. 7, lines 38 - 59).

Regarding Claim 33, Wozniak's remote control device 10 is able to connect to and communicate with a home computer via cradle 25 (see Col. 9, lines 3 - 6). Wozniak, however, is silent on remote control device 10 accessing files for maintenance and updating.

Allport's remote control 10 has an "updates" screen 60 that allows a user to identify new devices to remote control 10 and an "update system" screen 65 that allows a user to load the required IR commands (see Col. 10, lines 27 - 31). Allport imparts that remote control 10 is able to interact with and gather data or access files from the Internet and other data sources such as a PC (see Col. 5, lines 50 - 59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control device 10 of Wozniak as taught by Allport because a remote control device 10 having the ability to access files for maintenance and updating from a PC enables a user to easily maintain the remote control device's command library and keep it current.

14. Claims 7 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of Publication No. US 2001/0025349 A1 (Sharood et al.).

Regarding Claim 7, Wozniak and Allport's remote control 10 does control a security system and room lighting and is able to turn lights on and off or activate/deactivate the

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security system according to a schedule (see Wozniak, Fig. 11, and Col. 13, lines 28 - 30). Wozniak and Allport, though, neglect to teach that the security system is arranged and configured to open and close windows, lock and unlock doors and windows, and open and close drapes and vents.

In an analogous art, control server 100 of Sharood's BC system is connected to a plurality of devices that automatically improves personal comfort. Among these devices are automatic blinds or drapes and a zone control system that includes temperature sensors and variable dampers or vents. See Sections [0183] - [0185]. Here it is understood that automatic windows are also incorporated in the enhanced comfort feature of Sharood's BC system. Sharood's BC system also has a central locking and door access system for locking and unlocking doors and windows (see Sections [0205] - [0210]) and a lighting system for turning lights on and off on a fixed or random schedule (see Sections [0215] - [0217]). Because Sharood imparts that the BC system can be programmed to simulate occupancy and activate energy saving control during the "away" or "vacation" modes, it is understood that the devices associated with the comfort control system, central locking and door access system, and lighting system form a security system when the BC system is in the "away" or "vacation" modes. See Sections [0143], [0146], [0184], and [0191].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wozniak and Allport's security system as taught by Sharood because a security system that is arranged and configured to open and close windows, lock and unlock doors and windows, and open and close drapes and vents provides a more simulation of an occupied house than a security system that only controls the lights.

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Regarding Claim 36, Wozniak and Allport's remote control 10 is unable to control and monitor water.

Sharood's standard touchpad 152 is able to control and monitor all the devices controlled by the BC system, including water. See Sections [0055], [0114], [0143], [0146], [0147], [0157] [0158], and [0180].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wozniak and Allport's remote control 10 as taught by Sharood because a remote control 10 that is able to control and monitor water results in energy savings.

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15. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of U.S. Patent No. 5,805,530 (Youngberg).

Regarding Claim 8, Wozniak and Allport's remote control 10 lacks a global positioning system (GPS) receiver.

In an analogous art, Youngberg teaches a master clock 2 or control device that is able to set the time of day and other information in host devices such as televisions, VCRs, kitchen appliances, and vehicles (see Figs. 2 - 4). As shown in Fig. 4, Youngberg's master clock has a radio frequency (RF)/satellite receiver circuit, which is connected to a processor, for receiving input from an external reference source, such as a GPS satellite or WWV radio (see Col. 4, lines 2 - 13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wozniak and Allport's remote control 10 as taught by Youngberg because a GPS receiver enables remote control 10 to maintain accurate time of day

for timed events (such as turning lights on and off or the activation or deactivation of a security system).

Regarding Claim 9, both Wozniak and Allport teach a remote control that controls a security system (see Wozniak, Col. 3, lines 23 - 31; and Allport, Col. 9, lines 63 - 65). Though Wozniak and Allport omit disclosing that the security system comprises a silent or stealth alarm mode, the Examiner takes Official Notice that security systems with a silent alarm mode are well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wozniak and Allport's security system such that it has a silent alarm mode since the Examiner takes Official Notice that security systems with a silent alarm mode are well known and improve capture of a perpetrator by concealing that an alarm has been triggered.

16. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of U.S. Patent No. 6,195,589 (Ketcham).

Regarding Claims 11 and 12, though Wozniak's cradle, as modified by Allport, has a battery charger (see Allport, Col. 28, lines 38 - 45), the cradle lacks a memory and a chargeable battery pack.

In an analogous art, Ketcham discloses a personal data assistant (PDA) 12 having remote control capabilities and the ability to accept scanned bar codes (see Col. 1, lines 32 - 41; Col. 4, lines 47 - 48; and Col. 5, lines 4 - 12). In order to provide such features, Ketcham teaches connecting PDA 12 to an adapter 10 or cradle, as illustrated in Fig. 1 (see Col. 1, lines 42 - 56). Per Ketcham, adapter 10's circuitry, as shown in Fig. 3, includes a microprocessor 38, which performs the operations as selected by control buttons 42 (see Col. 3, lines 36 - 42). In addition,

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when adapter 10 scans a bar code, it is converted into a digital signal and sent to microprocessor 38 for decoding (see Col. 4, lines 47 - 60). Thus, Ketcham implies that microprocessor 38 has at least one internal memory for storing instructions for microprocessor 38. Ketcham adds that adapter 10's power source 40 comprises the same battery system as used in a conventional PDA, which is understood to be a rechargeable battery pack.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wozniak and Allport's remote control 10 as taught by Ketcham because a cradle with a memory for storage enables the cradle to provide other functionalities, such as bar code scanning.

17. Claims 15, 19, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of Publication No. US 202/0149705 A1 (Allen et al.).

Regarding Claims 15 and 35, Wozniak, as modified by Allport, teaches a remote control device 10 having a plurality of ports (or jacks) and a speaker 670 connected to CPU 605 via IO ASIC 630, thereby enabling remote control 10 to alert users of errors or to assist visually impaired users (see Allport, Fig. 18; Col. 27, lines 40 - 61; and Col. 28, lines 11 - 22). Wozniak and Allport, however, are silent on connecting remote control 10's microprocessor to a microphone and a camera. In addition, Wozniak and Allport's remote control device lacks means for wireless or radio audio-visual communications and is unable to support teleconferencing.

In an analogous art, Allen teaches a hybrid communicator/remote control 106 (see Fig. 2) that is able to remotely operate an interactive television system that includes a set top box (STB) and a television set. See Section [0021]. In addition, because it has a digital video camera

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245, a speaker 242, and a microphone 244, as depicted in Fig. 2, hybrid communicator/remote control 106 is capable of sending and receiving wireless audio/video signals and providing videoconferencing. See Sections [0022], [0048], and [0051] – [0056]. In Fig. 4, CPU 416 of hybrid communicator/remote control 106 is connected to speaker 242 and a microphone 244 via bus 410 and audio controller 430. See Sections [00388], [0080], and [0085]. Although not shown, it is understood that camera 245 is also connected to CPU 416 in order to enable videoconferencing.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Allen because connecting remote control 10's microprocessor to a microphone and a camera and providing means for wireless audio-visual communication enables remote control 10 to provide videoconferencing, thus improving the device's functionality.

Regarding Claim 19, Wozniak and Allport's remote control 10 lacks voice-activation and recognition software.

Allen's hybrid communicator/remote control 106 has voice-activation and recognition software. See Sections [0024], [0096], [0102], and [0103].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Allen because voice-activation and recognition software provides hands-free control of remote control 10, thus making the system easy to use.

18. Claims 16, 26 – 30, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and Publication No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of U.S. Patent No. 5,917,405 (Joao).

Regarding Claim 16, Wozniak's remote control 10, as modified by Allport, is able to communicate over local RF intercommunication (see Wozniak, Col. 2, lines 13 - 19). Wozniak and Allport's remote control 10, however, is unable to communicate over a cellular network, a satellite system (such as the global positioning system), a weather radio system, and National Institute of Standards and Technology's (NIST) radio station WWV.

In an analogous art, Joao teaches a control apparatus for vehicles that is used in conjunction with residential premises (see Abstract and Col. 10, lines 40 - 43). When used in conjunction with residential premises, Joao's control apparatus is able to control a home thermostat or environmental control system that is connected to the home HVAC system (see Col. 11, lines 38 - 47). As shown in Figs. 1 and 15, Joao's system includes a transmitter 2, which is a remote system (see Col. 18, lines 57 - 58). Joao imparts that transmitter 2 comprises of a user interface device 2A, a transmitter 2B for transmitting signals selected by a user, a receiver 2C, and a device for providing audio and video indication of system operation and status and information received by receiver 2C (see Col. 18, lines 41 - 57). Per Joao, transmitter 2 is a personal communication device that can communicate over an appropriate communications system operating anywhere in the electromagnetic and radio spectrum, including radio signal, personal communication service (PCS) or cellular, optical, and satellite systems (see Col. 19, lines 10 - 20), thereby implying that Joao's transmitter 2 is able to communicate over the global positioning system, a weather radio system, and National Institute of Standards and Technology's (NIST) radio station WWV.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Joao because a remote control 10 with the ability to communicate over a cellular network, a satellite

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system (such as the global positioning system), a weather radio system, and National Institute of Standards and Technology's (NIST) radio station WWV provides a user the ability to monitor and control his/her home from any remote location, thereby improving the effectiveness and convenience of the system (see Joao, Col. 2, lines 64 - 67 and Col. 3, lines 1 - 3 and 50 - 54).

Regarding Claims 26 - 29 and 37, Wozniak and Allport neglect teaching that remote control 10 is able to control: (1) pet surveillance and monitoring equipment, (2) yard and greenhouse diagnosis, surveillance, supervision, and maintenance equipment; (3) vehicle engine start-up and warming equipment; (4) vehicle door locks and vehicle location monitoring equipment; and (5) swimming pool equipment, such as a heater.

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Per Joao, transmitter 2 is able to control apparatus 1500, which is connected, via CPU 4, to home equipment systems 1515 and home thermostat system 1517 (see Fig. 15). Home equipment systems 1515 include video recording equipment that are associated with a transceiver for transmitting video images to the user and for receiving control signals sent by the owner via transmitter 2 (see Col. 63, lines 66 - 67 and Col. 64, lines 6 - 17). The video recording devices, according to Joao, is located at any location inside the house so that the owner or occupant can observe the occupants or anything, such as a pet, located in the house (see Col. 64, lines 18 - 24). Here it is understood that the video recording devices form a pet surveillance and monitoring system. Because Joao states home equipment systems 1515 include devices for controlling and monitoring lawn sprinkler systems, electric fences, pool equipment, etc. (see Col. 62, lines 62 - 67; Col. 63, lines 1 - 19), it is understood that pool equipment includes a water heater for the pool and that greenhouse diagnosis, surveillance, supervision, and maintenance equipment is also part of home equipment systems 1515. Joao's vehicle control apparatus, as shown in Fig. 1, has a receiver 3 for receiving signals from transmitter 2 (see Col.

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19, lines 51 - 60). Upon receiving the appropriate signal from receiver 3, CPU 4 will issue a signal to vehicle ignition system 7 or vehicle engine start-up and warming equipment, either disabling or enabling vehicle ignition system 7 (see Col. 21, lines 50 - 59). Transmitter 2 is also able to control vehicle equipment systems 11, which includes a power door lock system and a homing and tracking system for indicating the location of the vehicle (see Col. 21, lines 27 - 42 and Col. 22, lines 50 - 65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Joao because the ability to conveniently and effectively control a plurality of systems from a remote location at any time is invaluable to a home and/or vehicle owner (see Joao, Col. 2, lines 64 - 67 and Col. 3, lines 1- 3).

Regarding Claim 30, Wozniak's remote control 10, as modified by Allport, includes the option of saving or downloading its current settings onto another remote control 10 (see Wozniak, Col. 23, lines 13 - 19). Because Wozniak and Allport's remote control 10 has IrDA port 645 (see Fig. 18) for wireless communication, it is understood that the first remote control 10 communicates with the second remote control 10 via IR signals and that the second remote control 10 is also able to transmit data, such as its current settings, to the first remote control 10 via IR signals. Though Wozniak and Allport's remote control 10 is also able to control/program a plurality of devices (see Wozniak, Fig. 11), remote control 10 is unable to monitor a plurality of devices.

Joao's transmitter 2, on the other hand, is able to monitor hot water heaters, garage door openers, lawn sprinkler systems, electric fences, etc. (see Col. 11, lines 59 - 67 and Col. 12, lines 1 - 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Joao because a plurality of remote controls having the ability to control monitor various devices or systems enable multiple users to control and monitor their premises from any location and at any time, thus improving the convenience and efficiency of the system.

19. Claims 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of U.S. Patent No. 6,398,727 (Bui et al.).

Regarding Claims 24 and 25, Wozniak and Allport neglect to teach that remote control 10 comprises health surveillance and monitoring equipment.

In an analogous art, Bui discloses a patient management system that includes a communications unit and a programmable patient monitor for monitoring and recording a patient's physiological conditions (see Abstract). Bui's communications unit 30, as shown in Figs. 3A - 3B, 5, 6, and 7A-7D includes housing 102, custom keypad 110, LCD display 114, and speaker 116 (see Col. 7, lines 20 - 23). Communications unit 30 also has a modem 31 that is a wireless transceiver (IR or RF) and serial connector 36 for data transmission and reception between communications unit 30 and monitor 20 (see Col. 7, lines 23 - 27 and 52 - 57). Communications unit 30, as shown in Fig. 1, is able to control patient monitor 20, sensors 53, 54, 56, 58, and 59, and other devices 40 (see Col. 6, lines 14 - 17 and 26 - 30). Per Bui, communications unit 30 controls these sensors to measure or poll a patient's physiological conditions at specified times (see Col. 6, lines 14 - 17). In the event of an emergency, communications unit 30 is able to contact a patient's caregiver or dial "911" (see Col. 12, lines 4 - 34).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Bui because a remote control device with the ability to monitor the health of a user and automatically contact the appropriate personnel in the event of an emergency ensures prompts medical assistance.

20. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,918,439 (Wozniak et al.) and U.S. Patent No. 6,104,334 (Allport) as applied to claim 1 above, and further in view of U.S. Patent No. 6,264,559 (Lawrence et al.)

Regarding Claims 31 and 32, remote control 10 of Wozniak, as modified by Allport, comprises: (a) a graphical display 85 having programmable buttons (see Allport, Col. 12, lines 13 - 16); (b) connector 27 or input/output (I/O) port (see Wozniak, Fig. 3 and Col. 7, lines 65 - 68); and (c) software for monitoring and processing received IR signals when in the learning mode and for transmitting control signals (see Wozniak, Figs. 7a - 7f; Col. 5, lines 47 - 49 and 63 - 68; and Col. 6, lines 13 - 22). Remote control 10 is also able to run additional programs, such as the one that enables a user to program remote control 10 to monitor the time and emit various control signals at selected times (see Col. 13, lines 28 - 30). Wozniak and Allport omit adding games software to remote control 10. In addition, Wozniak and Allport's remote control 10 lacks a recessed parallel port.

In an analogous art, Lawrence teaches an interactive television system that includes a set top box and a remote control unit with control logic to execute game software instructions stored in a local medium and process input signals received from the input device to play the game software in addition to the normal functions of the remote control unit (see Col. 1, lines 58 - 65). The remote control unit and the set top box may communicate in a number of different

ways, and in one embodiment, the set top box and remote control unit communicate within the infrared frequency spectrum. The remote control unit control logic is configured to download game software from the set top box and store the software in a remote control medium (see Col. 2, lines 25 - 34). Referring to Figs. 2 and 3, Lawrence's remote control unit 82 has a recessed bus connector 102 that is configured for a USB or parallel port connector, thereby enabling remote control unit 82 (see Col. 5, lines 40 - 49).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control of Wozniak and Allport as taught by Lawrence because a remote control 10 with a parallel port, which enables the connection of a gaming controller, and the ability to execute game software, in addition to its normal functions, enhances the overall television viewing experience for the viewer (see Lawrence, Col. 1, lines 64 - 65).

### *Conclusion*

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ♦ U.S. Patent No. 5,247,580 (Kimura et al.): Kimura teaches a voice-operated remote control device.
- ♦ U.S. Patent No. 5,778,256 (Darbee): Darbee teaches a personal digital assistance (PDA) for controlling home appliances, wherein the PDA has a serial port 32 and a parallel port 30.
- ♦ U.S. Patent No. 6,192,282 (Smith et al.): Smith teaches a user interface 15, such as an IR remote control device, that controls and monitors building automation systems, such as environment and energy systems 19 (thermostat), water management system 23 (greenhouse, pool temperature, pH levels, etc.), entertainment system 25, etc.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

CY  
July 31, 2003



BRIAN ZIMMERMAN  
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